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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,377

02/01/2005

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GB 030052

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24737

7590

11/24/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

TAHA, SHAQ

ART UNIT

PAPER NUMBER

2446

MAIL DATE

DELIVERY MODE

11/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,377	Applicant(s) BLACKWELL ET AL.	
	Examiner SHAQ TAHA	Art Unit 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a non-final action for application number 10/523,377 based on after request for continued examination filed on 03/10/2009. The original application was filed on 02/01//2005. Claims 1 – 22 are currently pending and have been considered below. Claims 1 - 22 are amended. Claims 1, 8, 9, 11, 15, 19, and 21 are independent claims.

Applicant's Response

Applicant's arguments with respect to claims 1 – 22 have been considered but are moot in view of the new ground(s) of rejection

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 1, the phrase "otherwise not" renders the claim indefinite because it is unclear whether otherwise refers to the required device description or the availability of the device description.

Regarding claims 1, 9, 11, 15, and 21, the phrase "if the simple device description indicates that the extended device description is available" renders the claim indefinite because it is unclear how the indication is done in the simple device description.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 – 9, 11, and 13 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zintel et al. (US 6,222,530) in view of Ray et al. (US 7,093,031) and further in view of Chen et al. (US 2003/0167369)

Regarding claims 1, 8, 15, and 18 - 20, a method of operation of a networked device in a network having at least one other device, the method comprising acts of:

sending a simple device description query message to the at least one other device requesting a simple device description, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, (Zintel et al., Paragraph 61)],**

receiving from the at least one other device a simple device description message of defined length including a device type value representing the type of the at least one

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other device, **[Controlled Devices respond to discovery requests, accept incoming communications from User Control Points and may send Events to User Control Points, wherein after a device requests another devices description that devices sends its description to the first device, (Zintel et al., Paragraph 62)]**;

if an extended device description is required by the network device, sending a query message to the at least one other device requesting an extended device description from the at least one other device if the simple device description indicates that the extended device description is available, **[Using this protocol stack, retrieving the UPnP description for a device is simple: the control point issues an HTTP GET request to the URL in the discovery message, and the device returns its description in the body of an HTTP response. The headers and body for the response and request are explained in detail below, (Zintel et al., Paragraph 725)]**,

Zintel et al. fails to teach the availability of the extended device description on the other device,

Ray et al. teaches the extended configuration descriptor 122 as shown in Fig. 4, wherein it includes a header section 400 and a function section 402, **(Ray et al., Col. 9, lines 5 – 10)**, in order to respond to a request the peripheral device provides extended configuration descriptor 122 to the computer, **(Ray et al., Col. 6, Lines 25 – 30)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zintel et al. by including that an extended description of the device is available if it is required as taught in Ray et al. wherein the extended configuration descriptor 122 as shown in Fig. 4, wherein it includes a header section

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400 and a function section 402, (Ray et al., Col. 9, lines 5 – 10), in order to respond to a request the peripheral device provides extended configuration descriptor 122 to the computer, **(Ray et al., Col. 6, Lines 25 – 30),**

The modified Zintel fails to explicitly teach not sending the query message to the at least one other device requesting the extended device description,

Chen et al. teaches the variable-function device 110 sends a request 1830 to the computer 105 for a device description, and , in response to the request, the computer sends the device description 1835 to the variable-function device 110, **(Chen et al., Paragraph 94),** in order to permit variable functionality, **(Chen et al., Abstract),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Zintel et al. by sending the query message to the at least one other device requesting the extended device description, **(Chen et al., Paragraph 94),** in order to permit variable functionality, **(Chen et al., Abstract).**

Regarding claim 2, Zintel teaches the method that establishing the network address of the at least one other devices before the act of sending a simple device description to at least one other device, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, (Zintel et al., Paragraph 61)].**

Regarding claim 4, Zintel teaches the method that the networked device is a controller device comprising a list of device types that the controller can control, **[A prevalent feature of these connectivity scenarios is to provide remote access and control of connected devices and services from another device with user interface capabilities, (Zintel et al., Paragraph 3)]**.

Regarding claim 5, Zintel teaches the method, the method further an act of determining whether the networked device can control the at least one other device by: determining the lowest level of device type that either is the device type of the other device or is a higher level device type from which the device type of the other device depends, in the list of device types that can be controlled by the controller, to determine the extent to which the networked device can control the other device, **[FIGS. 11 and 12 are block diagrams illustrating an internal software architecture of the user control point and controlled device in the device control model of FIG. 3, (Zintel et al., Paragraph 22)]**.

Regarding claim 6, Zintel teaches the method further comprising acts of: receiving a controller query message including a requested device type value to request whether the controller is able to control a device of the requested device type, **[Rehydrator invoke Service Action O will send an HTTP request to the control server identified by the second parameter, (Zintel et al., Paragraph 33)]**;

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and responding with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends, **[The Dehydrator will wait for the HTTP response to this request, (Zintel et al., Paragraph 34)].**

Regarding claim 7, Zintel teaches the method wherein the predetermined top-level elements in the device type hierarchy further include a composite device type, **[The formal definition of a Device Type. A Device Definition includes a Device Type Identifier, the fixed elements in the Description Document, the required set of Service Definitions in the Root Device, and the hierarchy of required Devices and Service Definition, (Zintel et al., Paragraph 69)],**

and the networked device is of the composite device type having the functionality of an integer number of other devices, **[Fixed point, and integer number, may have a leading sign, may have leading zeros. (No currency symbol, (Zintel et al., Paragraph 786)],**

the method further comprising an act of: responding to a received simple device description query message by sending a simple device description message including the device type value (232) representing the device as a composite device, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in**

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a network and one device requests another's device description, (Zintel et al., Paragraph 61)],

and further an integer sub-device number being the number of other devices,
[Fixed point, and integer number, may have a leading sign, may have leading zeros. (No currency symbol, (Zintel et al., Paragraph 786)).

Regarding claim 9, Zintel teaches a networked device including: a transceiver (8) for sending and receiving messages, **[Fig.23, Ref # 620],**

and a message handler arranged in a communication network with a plurality of second devices, the networked device being configured to perform acts of, **[In addition to the creating the Service object, the Rehydrator sets up its internal data structures so that it can properly handle requests to control the service, (Zintel et al., Paragraph 224)],**

in response to receiving a simple device description query message from one of the plurality of second devices, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, (Zintel et al., Paragraph 61)],**

sending to the one of the plurality of second devices, a simple device description message of defined length including a device type value representing the type of the networked device, **[The set of modules that enables communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with**

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Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, (Zintel et al., Paragraph 61)],

in response to receiving an extended device description query message from an other one of the plurality of second devices, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, (Zintel et al., Paragraph 61)];**

sending to the other device of the plurality of second devices, an extended device description of variable length if the extended device description is available, **[Following discovery of a UPnP device, an entity can learn more about the device and its capabilities by retrieving the device's description, from a URL provided by the device in an initial discovery message, (See Abstract)],**

The modified Zintel fails to explicitly teach not sending the query message to the at least one other device requesting the extended device description,

Chen et al. teaches the variable-function device 110 sends a request 1830 to the computer 105 for a device description, and , in response to the request, the computer sends the device description 1835 to the variable-function device 110, **(Chen et al., Paragraph 94),** in order to permit variable functionality, **(Chen et al., Abstract),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the modified Zintel et al. by sending the query message

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to the at least one other device requesting the extended device description, (**Chen et al., Paragraph 94**), in order to permit variable functionality, (**Chen et al., Abstract**).

Regarding claim 11, Zintel teaches the networked device, including: a transceiver (8) for sending and receiving messages, **[Fig.23, Ref # 620]**;

a message handler in a communication network with a plurality of second devices, the networked device being configured to perform acts of , **[In addition to the creating the Service object, the Rehydrator sets up its internal data structures so that it can properly handle requests to control the service, (Zintel et al., Paragraph 224)]**;

of: sending a simple device description query message to one of the plurality of second devices requesting a simple device description, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, (Zintel et al., Paragraph 61)]**;

receiving from one of the plurality of second devices a simple device description message of fixed length including a device type value representing the type of the one of the plurality of second devices and a field indicating whether an extended device description is available, **[The set of modules that enables communication with a UPnP Controlled Device. User Control Points initiate discovery and**

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communication with Controlled Devices, and receive Events from Controlled Devices, (Paragraph 0061)];

testing the simple device description message to determine whether an extended device description is available, **[automated tools can automatically check to ensure that the templates and descriptions have all required elements, are correctly nested, and have values of the correct data types, (Zintel et al., Paragraph 605)];**

sending an extended device description query message to the one of the plurality of second devices requesting an extended device description, **[The set of modules that enables communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, (Zintel et al., Paragraph 61)];**

and receiving from the one of the plurality of second devices an extended device description of variable length if the extended device description is available, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, (Zintel et al., Paragraph 61)],**

Zintel et al. fails to teach the availability of the extended device description on the other device,

Ray et al. teaches the extended configuration descriptor 122 as shown in Fig. 4, wherein it includes a header section 400 and a function section 402, **(Ray et al., Col. 9,**

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lines 5 – 10), in order to respond to a request the peripheral device provides extended configuration descriptor 122 to the computer, **(Ray et al., Col. 6, Lines 25 – 30)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zintel et al. by including that an extended description of the device is available if it is required as taught in Ray et al. wherein the extended configuration descriptor 122 as shown in Fig. 4, wherein it includes a header section 400 and a function section 402, (Ray et al., Col. 9, lines 5 – 10), in order to respond to a request the peripheral device provides extended configuration descriptor 122 to the computer, **(Ray et al., Col. 6, Lines 25 – 30)**.

Regarding claim 13, Zintel teaches the networked device wherein the networked device has the controller device type, wherein the networked device comprises a list of device types that can be controlled by the networked device, **[multiple function devices 102-103 of FIG. 1 and bridged devices 122-123 of FIG. 2, wherein multiple devices connected in a network, (Zintel et al., Paragraph 152)]**;

so that the networked device can determine the extent to which the networked device can control another device by determining the lowest level of device type that either is the device type of the one of the plurality of second devices or is a higher level device type from which the device type of one of the plurality of second devices depends, in the list of device types that can be controlled by the controller, **[A prevalent feature of these connectivity scenarios is to provide remote access and control of connected devices and services from another device with user interface**

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capabilities (e.g., a universal remote controller, handheld computer or digital assistant, cell phones, and the like), (Zintel et al., Paragraph 3)].

Regarding claim 14, Zintel teaches the networked device wherein the message handler is arranged: to receive a controller query message including a device type value to request whether the controller is able to control a device of the requested device type, **[In addition to the creating the Service object, the Dehydrator sets up its internal data structures so that it can properly handle requests to control the service. Specifically, it creates a list of the properties and actions exported by the service, (Zintel et al., Paragraph 224)];**

and to respond with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends, **[Controlled Devices respond to discovery requests, accept incoming communications from User Control Points and may send Events to User Control Points, (Zintel et al., Paragraph 62)].**

Regarding claim 16, Zintel teaches the system, wherein the plurality of networked devices includes at least one simple device without the capability to decompress messages and interpreting directly compressed messages, **[A module used by a UPnP Bridge that translates between UPnP protocols and the protocols used by Bridged and Legacy Devices, (Zintel et al., Paragraph 64)];**

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and at least one complex device including a message decompression arrangement (184) for decompressing the messages and a message interpreter for interpreting the decompressed messages, **[A typical Device Friendly Name will contain manufacturer and model information, and especially when interpreted by humans, can be used to enable a more precise identification of a UPnP Device from the set of discovered Devices, (Zintel et al., Paragraph 75)].**

Regarding claim 17, Zintel teaches the system according to wherein the predetermined top level elements further include a composite device type, **[in device connectivity models requiring establishing persistent device relationship configurations, such one-time and occasional relationships between these devices would results in configuration instability requiring management and maintenance of ever-changing persistent device configurations, (Zintel et al., Paragraph 7)];**

the system includes at least one networked device of the composite device type having the functionality of a predetermined number of other devices, the predetermined number being an integer greater than or equal to 2, **[Fixed point, integer number. May have a leading sign. May have leading zeros. (No currency symbol, (Zintel et al., Paragraph 786))] ;**

and each of the at least one networked device of the composite device type responds to an incoming device query message requiring a simple device description, **[Controlled Devices respond to discovery requests, accept incoming**

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communications from User Control Points and may send Events to User Control Points, (Zintel et al., Paragraph 62)];

by sending a simple device description (including the device type as a composite device and a sub-device number (234) representing the predetermined number of other devices, **[The set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, (Zintel et al., Paragraph 61)].**

Regarding claims 21 and 22, Zintel teaches a method of utilizing a network establishment and management protocol for controlling a plurality of electronic devices, the method comprising the acts of: **[Additionally, User Datagram Protocol (UDP) and Internet Group Management Protocol (IGMP) multicast send/listen capability are included in the implementation, (Paragraph 0539)];**

Providing a compression algorithm defining the mechanism for compression of said messages a definition of defining a generic message format, the messages being compressed XML compliant messages, **[The description is expressed in XML and includes vendor-specific manufacturer information like the model name and number, serial number, manufacturer name, URLs to vendor-specific Web sites, etc. The description also includes a list of any embedded devices or services, as well as URLs for control, eventing, and presentation, (Paragraph 0010)];**

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defining of message sequencing requirements, **[FIG. 14 is a data flow diagram illustrating a typical browsing protocol sequence in the device control model of FIG.3, (Paragraph 0024)],**

wherein said plurality of electronic devices include at least one device capable of recognizing only a compressed message and providing only a simple value to represent a description of its type, **[Simple Service Discovery Protocol (SSDP) TCP/IP provides the ability to initiate a connection with a specified application running on a specific device, provided both the network address of the device (IP address) and the application address (port) are known, wherein the IP address is the simple value of that device, (Zintel et al., Paragraph 117)],**

Zintel et al. fails to teach the availability of the extended device description on the other device,

Ray et al. teaches the extended configuration descriptor 122 as shown in Fig. 4, wherein it includes a header section 400 and a function section 402, **(Ray et al., Col. 9, lines 5 – 10)**, in order to respond to a request the peripheral device provides extended configuration descriptor 122 to the computer, **(Ray et al., Col. 6, Lines 25 – 30)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zintel et al. by including that an extended description of the device is available if it is required as taught in Ray et al. wherein the extended configuration descriptor 122 as shown in Fig. 4, wherein it includes a header section 400 and a function section 402, **(Ray et al., Col. 9, lines 5 – 10)**, in order to respond to a

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request the peripheral device provides extended configuration descriptor 122 to the computer, **(Ray et al., Col. 6, Lines 25 – 30).**

Claims 3, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zintel et al. (US 6,222,530) in view of Ray et al (US 7,093,031) further in view of Chen et al. (US 2003/0167369) and further in view of Unger et al. (US 5,991,713).

Regarding Claims 3, 10, and 12, Zintel teaches the set of modules that enable communication with a UPnP Controlled Device. User Control Points initiate discovery and communication with Controlled Devices, and receive Events from Controlled Devices, wherein the controlled devices are connected in a network and one device requests another's device description, **(Zintel et al., Paragraph 61),**

Zintel et al. fails to teach that the simple device description message is in the form of a token-compressed message compressed from a human-readable message format,

Unger teaches in Fig. 8 in step 210, each word within the text from the original material is replaced with the number or token corresponding to that word in the stored dictionaries, **(Urge et al., Col. 11, lines 15-20)**, in order to tokens which are assigned to each unique word in the text are determined by processing the specific text to be encoded and developing a table that ranks the words by frequency of occurrence in the text, **(Urge et al., Col. 1, lines 39-45)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zintel by including that the simple device description message is in the form of a token-compressed message compressed from a human-readable message format wherein Unger teaches in Fig. 8 in step 210, each word within the text from the original material is replaced with the number or token corresponding to that word in the stored dictionaries, **(Urge et al., Col. 11, lines 15-20)**, in order to tokens which are assigned to each unique word in the text are determined by processing the specific text to be encoded and developing a table that ranks the words by frequency of occurrence in the text, **(Urge et al., Col. 1, lines 39-45)**.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. T./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446